DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney of record, James J. Livingston, Jr. on December 8, 2009.

The application has been amended as follows:

Replace the Disclosure of the Invention section of the specification on pages 3-30, as follows:

According to the present invention as described ~~in claim 1,~~ a network analyzer includes: an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element.

The signal output acquiring element acquires the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors. This allows errors, etc.

due to frequency tracking to be separated depending on the direction thereof. In the case where the frequency of an input signal of a device under test is different from that of the output signal thereof, errors, etc. due to frequency tracking vary depending on the direction thereof. Therefore, it is possible to correct measurement system errors by separating the measurement system error factors depending on the direction thereof.

The present invention as previously described ~~in claim 2, is the~~ a network analyzer ~~according to claim 1,~~ wherein the reflected signal measuring element measures the predetermined parameter concerning the reflected signal for the input signal reflected from a correction tool connected to the network analyzer, the correction tool achieving three kinds of conditions of opening, shorting and standard loading.

~~According to the~~ The present invention as previously described ~~in claim 3, is the~~ a network analyzer that ~~according to claim 1 or 2,~~ further includes a receiving element for receiving the input signal, after being output, as a received signal, the receiving element having a received signal measuring element for measuring a predetermined parameter concerning the received signal, wherein the measurement system error factor acquiring element acquires measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element, the signal output acquiring element and the received signal measuring element.

The received signal measuring element measures the predetermined parameter (S parameter for example) concerning the received signal, which makes it possible to acquire the measurement system error factor of the receiving element.

In the case where the frequency of an input signal of a device under test is different from that of the output signal thereof, the measurement system error factor of the receiving element cannot be ignored. Therefore, it is possible to correct measurement system errors by acquiring the measurement system error factor of the receiving element.

The present invention as previously described ~~in claim 4,~~ is ~~the~~ a network analyzer ~~according to claim 3,~~ wherein the reflected signal measuring element measures a predetermined parameter concerning a reflected signal for the input signal reflected from a device under test, and wherein the receiving element receives the input signal, after being output, through the device under test as the received signal, further including a parameter measuring element for measuring predetermined parameters concerning the device under test based on the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element, and the measurement system error factors.

As the measurement system error factors are separated depending on the direction thereof and further the measurement system error factor of the receiving element is acquired, in combination with the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element, it is possible to measure the predetermined parameters (S parameters for example) concerning the device under test while correcting errors.

The present invention as previously described ~~in claim 5,~~ is ~~the~~ a network analyzer ~~according to claim 3,~~ wherein the receiving element includes: a receiving side input signal measuring element for measuring a predetermined parameter concerning the input signal before

the occurrence of measurement system error factors; a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and a receiving side measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element.

The receiving side signal output acquiring element acquires the predetermined parameter (S parameter for example) concerning the input signal after the occurrence of the measurement system error factors. This allows errors, etc. due to frequency tracking to be separated on the receiving side depending on the direction thereof.

In the case where the frequency of an input signal of a device under test is different from that of the output signal thereof, errors, etc. due to frequency tracking vary depending on the direction thereof also on the receiving side. Therefore, it is possible also on the receiving side to correct measurement system errors by separating the measurement system error factors depending on the direction thereof.

The present invention as previously described ~~in claim 6, is the~~ a network analyzer ~~according to claim 5,~~ wherein the receiving side reflected signal measuring element is the received signal measuring element.

The present invention as previously described ~~in claim 7,~~ is ~~the~~ a network analyzer ~~according to claim 5 or 6,~~ wherein the receiving side reflected signal measuring element measures the predetermined parameter concerning the reflected signal for the input signal reflected from a correction tool connected to the network analyzer, the correction tool achieving three kinds of conditions of opening, shorting and standard loading.

The present invention as previously described ~~in claim 8,~~ is ~~the~~ a network analyzer ~~according to any of claims 5 to 7,~~ wherein the reflected signal measuring element measures a predetermined parameter by receiving the input signal after being output from the receiving element, and wherein the receiving side measurement system error factor acquiring element acquires measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element, the receiving side signal output acquiring element and the reflected signal measuring element.

The reflected signal measuring element measures the predetermined parameter (S parameter for example) receiving the input signal after being output from the receiving element, which makes it possible to acquire the measurement system error factors in the case of receiving the signal on the side of the signal outputting element.

In the case where the frequency of an input signal of a device under test is different from that of the output signal thereof, the measurement system error factors in the case of receiving the signal on the side of the signal outputting element cannot be ignored. Therefore, it is possible to correct measurement system errors by acquiring the measurement system error factors in the case of receiving the signal on the side of the signal outputting element.

The present invention as previously described ~~in claim 9, is the~~ a network analyzer ~~according to claim 8,~~ wherein in the case the input signal is given to a device under test directly, the reflected signal measuring element measures a predetermined parameter concerning a reflected signal for the input signal reflected from the device under test and the receiving element receives the input signal, after being output, through the device under test as the received signal, and wherein in the case the input signal is given to the device under test through the receiving element, the receiving side reflected signal measuring element measures a predetermined parameter concerning a receiving side reflected signal for the input signal reflected from the device under test and the reflected signal measuring element measures a predetermined parameter by receiving the input signal, after being output from the receiving element, through the device under test, further including a parameter measuring element for measuring predetermined parameters concerning the device under test based on: the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element in the case the input signal is given to the device under test directly; the measurement results, concerning the device under test, of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the reflected signal measuring element in the case the input signal is given to the device under test through the receiving element; and the measurement system error factors.

When the input signal is given to the device under test directly from the signal outputting element, the measurement system error factors are separated depending on the direction thereof and further the measurement system error factor of the receiving element is acquired.

Additionally, when the input signal is given to the device under test through the receiving element, the measurement system error factors are separated also on the receiving side and further the measurement system error factors in the case of receiving the signal on the side of the signal outputting element are acquired. Therefore, in combination with the measurement results concerning the device under test, it is possible to measure the predetermined parameters (S parameters for example) concerning the device under test while correcting errors.

~~According to the~~ The present invention as previously described ~~in claim 10, is the~~ a network analyzer that ~~according to claim 9,~~ further includes a selecting element for selecting whether the input signal is given to the device under test directly or through the receiving element.

The present invention as previously described ~~in claim 11, is the~~ a network analyzer ~~according to any of claims 4, 9 and 10,~~ wherein the frequency of an input signal of the device under test is different from that of the output signal thereof.

The present invention as previously described ~~in claim 12, is the~~ a network analyzer ~~according to claim 11,~~ wherein the device under test is a mixer.

The present invention as previously described ~~in claim 13, is the~~ a network analyzer ~~according to any of claims 1 to 12,~~ wherein the predetermined parameters are S parameters or powers.

According to the present invention as described ~~in claim 14,~~ a network analyzing method includes: an input signal measuring step for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; a reflected signal measuring step for measuring a predetermined parameter concerning a reflected signal for the

input signal; a signal output acquiring step for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and a measurement system error factor acquiring step for acquiring the measurement system error factors based on the measurement results of the input signal measuring step, the reflected signal measuring step and the signal output acquiring step.

The present invention as previously described ~~in claim 15,~~ is ~~the~~ a network analyzer method ~~according to claim 14,~~ wherein a network analyzing is performed by a network analyzer having a receiving element for receiving the input signal, after being output, as a received signal, the method further including a received signal measuring step for measuring a predetermined parameter concerning the received signal, wherein the measurement system error factor acquiring step acquires measurement system error factors based on the measurement results of the input signal measuring step, the reflected signal measuring step, the signal output acquiring step and the received signal measuring step.

The present invention as previously described ~~in claim 16,~~ is ~~the~~ a network analyzer method ~~according to claim 15,~~ wherein the reflected signal measuring step measures a predetermined parameter concerning a reflected signal for the input signal reflected from a device under test, and wherein the receiving element receives the input signal, after being output, through the device under test as the received signal, the method further including a parameter measuring element for measuring predetermined parameters concerning the device under test based on the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring step and the received signal measuring step, and the measurement system error factors.

~~According to the~~ The present invention as previously described ~~in claim 17, is the~~ a network analyzer-method that ~~according to claim 15,~~ further includes: a receiving side input signal measuring step for measuring a predetermined parameter concerning the input signal before the occurrence of measurement system error factors; a receiving side reflected signal measuring step for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; a receiving side signal output acquiring step for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and a receiving side measurement system error factor acquiring step for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring step, the receiving side reflected signal measuring step and the receiving side signal output acquiring step.

The present invention as previously described ~~in claim 18, is the~~ a network analyzer method ~~according to claim 17,~~ wherein the reflected signal measuring step measures a predetermined parameter by receiving the input signal after being output from the receiving element, and wherein the receiving side measurement system error factor acquiring step acquires measurement system error factors based on the measurement results of the receiving side input signal measuring step, the receiving side reflected signal measuring step, the receiving side signal output acquiring step and the reflected signal measuring step.

The present invention as previously described ~~in claim 19, is the~~ a network analyzer method ~~according to claim 18,~~ wherein in the case the input signal is given to a device under test directly, the reflected signal measuring step measures a predetermined parameter concerning a reflected signal for the input signal reflected from the device under test and the receiving element

receives the input signal, after being output, through the device under test as the received signal, and wherein in the case the input signal is given to the device under test through the receiving element, the receiving side reflected signal measuring step measures a predetermined parameter concerning a receiving side reflected signal for the input signal reflected from the device under test and the reflected signal measuring step measures a predetermined parameter by receiving the input signal, after being output from the receiving element, through the device under test, the method further including: a parameter measuring step for measuring predetermined parameters concerning the device under test based on: the measurement results, concerning the device under test, of the input signal measuring step, the reflected signal measuring step and the received signal measuring step in the case the input signal is given to the device under test directly; the measurement results, concerning the device under test, of the receiving side input signal measuring step, the receiving side reflected signal measuring step and the reflected signal measuring step in the case the input signal is given to the device under test through the receiving element; and the measurement system error factors.

The present invention as described ~~in claim 20,~~ is a program of instructions for execution by the computer to perform a network analyzing process of a network analyzer having: an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; and a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors, the network analyzing process including: a measurement system error factor acquiring step for acquiring the

measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element.

The present invention as previously described ~~in claim 21,~~ is ~~the~~ a program ~~according to claim 20,~~ wherein the network analyzer further including a receiving element for receiving the input signal, after being output, as a received signal, the receiving element having a received signal measuring element for measuring a predetermined parameter concerning the received signal, and wherein the measurement system error factor acquiring step acquires measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element, the signal output acquiring element and the received signal measuring element.

The present invention as previously described ~~in claim 22,~~ is ~~the~~ a program ~~according to claim 21,~~ wherein the reflected signal measuring element measures a predetermined parameter concerning a reflected signal for the input signal reflected from a device under test, and wherein the receiving element receives the input signal, after being output, through the device under test as the received signal, the network analyzing process further including a parameter measuring step for measuring predetermined parameters concerning the device under test based on the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element, and the measurement system error factors.

The present invention as previously described ~~in claim 23,~~ is ~~the~~ a program ~~according to claim 21,~~ wherein the receiving element includes: a receiving side input signal measuring

element for measuring a predetermined parameter concerning the input signal before the occurrence of measurement system error factors; a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; and a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors, the network analyzing process further including a receiving side measurement system error factor acquiring step for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element.

The present invention as previously described ~~in claim 24,~~ is ~~the~~ a program ~~according to claim 23,~~ wherein the reflected signal measuring element measures a predetermined parameter by receiving the input signal after being output from the receiving element, and wherein the receiving side measurement system error factor acquiring step acquires measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element, the receiving side signal output acquiring element and the reflected signal measuring element.

The present invention as previously described ~~in claim 25,~~ is ~~the~~ a program ~~according to claim 24,~~ wherein in the case the input signal is given to a device under test directly, the reflected signal measuring element measures a predetermined parameter concerning a reflected signal for the input signal reflected from the device under test and the receiving element receives the input signal, after being output, through the device under test as the received signal, and wherein in the

case the input signal is given to the device under test through the receiving element, the receiving side reflected signal measuring element measures a predetermined parameter concerning a receiving side reflected signal for the input signal reflected from the device under test and the reflected signal measuring element measures a predetermined parameter by receiving the input signal, after being output from the receiving element, through the device under test, the network analyzing process further including a parameter measuring step for measuring predetermined parameters concerning the device under test based on: the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element in the case the input signal is given to the device under test directly; the measurement results, concerning the device under test, of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the reflected signal measuring element in the case the input signal is given to the device under test through the receiving element; and the measurement system error factors.

The present invention as described ~~in claim 26,~~ is a computer-readable medium having a program of instructions for execution by the computer to perform a network analyzing process of a network analyzer having: an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; and a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors, the network analyzing process including: a measurement system error factor acquiring step for acquiring the measurement system error factors based on the measurement

results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element.

The present invention as previously described ~~in claim 27,~~ is ~~the~~ a computer-readable medium having ~~the~~ a program ~~according to claim 26,~~ wherein the network analyzer further including a receiving element for receiving the input signal, after being output, as a received signal, the receiving element having a received signal measuring element for measuring a predetermined parameter concerning the received signal, and wherein the measurement system error factor acquiring step acquires measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element, the signal output acquiring element and the received signal measuring element.

The present invention as previously described ~~in claim 28,~~ is ~~the~~ a computer-readable medium having ~~the~~ a program ~~according to claim 27,~~ wherein the reflected signal measuring element measures a predetermined parameter concerning a reflected signal for the input signal reflected from a device under test, and wherein the receiving element receives the input signal, after being output, through the device under test as the received signal, the network analyzing process further including a parameter measuring step for measuring predetermined parameters concerning the device under test based on the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element, and the measurement system error factors.

The present invention as previously described ~~in claim 29,~~ is ~~the~~ a computer-readable medium having ~~the~~ a program ~~according to claim 27,~~ wherein the receiving element includes: a receiving side input signal measuring element for measuring a predetermined parameter

concerning the input signal before the occurrence of measurement system error factors; a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; and a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors, the network analyzing process further including a receiving side measurement system error factor acquiring step for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element.

The present invention as previously described ~~in claim 30,~~ is ~~the~~ a computer-readable medium having ~~the~~ a program ~~according to claim 29,~~ wherein the reflected signal measuring element measures a predetermined parameter by receiving the input signal after being output from the receiving element, and wherein the receiving side measurement system error factor acquiring step acquires measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element, the receiving side signal output acquiring element and the reflected signal measuring element.

The present invention as previously described ~~in claim 31,~~ is ~~the~~ a computer-readable medium having ~~the~~ a program ~~according to claim 30,~~ wherein in the case the input signal is given to a device under test directly, the reflected signal measuring element measures a predetermined parameter concerning a reflected signal for the input signal reflected from the device under test

and the receiving element receives the input signal, after being output, through the device under test as the received signal, and wherein in the case the input signal is given to the device under test through the receiving element, the receiving side reflected signal measuring element measures a predetermined parameter concerning a receiving side reflected signal for the input signal reflected from the device under test and the reflected signal measuring element measures a predetermined parameter by receiving the input signal, after being output from the receiving element, through the device under test, the network analyzing process further including a parameter measuring step for measuring predetermined parameters concerning the device under test based on: the measurement results, concerning the device under test, of the input signal measuring element, the reflected signal measuring element and the received signal measuring element in the case the input signal is given to the device under test directly; the measurement results, concerning the device under test, of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the reflected signal measuring element in the case the input signal is given to the device under test through the receiving element; and the measurement system error factors.

The present invention as described ~~in claim 32,~~ is an automatic corrector being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; (d) a measurement system error factor acquiring element for

acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, the automatic corrector including: a plurality of correction tools for achieving different conditions respectively and an input signal providing element for providing the input signal by selecting any one of the correction tools or the receiving element automatically.

The present invention as previously described ~~in claim 33, is the~~ an automatic corrector ~~according to claim 32,~~ wherein the input signal providing element provides the input signal by selecting any one of the correction tools, the receiving element, or the signal output acquiring element automatically.

The present invention as previously described ~~in claim 34, is the~~ an automatic corrector ~~according to claim 33,~~ wherein the input signal providing element provides the input signal to the signal output acquiring element through a power meter.

The present invention as previously described ~~in claim 35, is the~~ an automatic corrector ~~according to claim 33,~~ wherein the input signal providing element provides the input signal to the signal output acquiring element through a power sensor and a power meter body, the power sensor being built in the automatic corrector and the power meter body being built in the network analyzer.

The present invention as described ~~in claim 36, is~~ an automatic corrector being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined

parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, wherein the receiving element includes: (e-1) a receiving side input signal measuring element for measuring a predetermined parameter concerning the input signal before the occurrence of measurement system error factors; (e-2) a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; (e-3) a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and (e-4) a receiving side measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element, the automatic corrector including: a plurality of first correction tools for achieving different conditions respectively in regard to the signal source of the input signal; a plurality of second correction tools for achieving different conditions respectively in regard to the receiving element; a first input signal providing element for providing the input signal from the signal source by selecting any one of the first correction tools or the receiving element automatically; and a second input signal providing

element for providing the input signal routed through the receiving element by selecting any one of the second correction tools or the signal source automatically.

The present invention as previously described ~~in claim 37,~~ is ~~the~~ an automatic corrector ~~according to claim 36,~~ wherein the first input signal providing element provides the input signal by selecting any one of the first correction tools, the receiving element, or the signal output acquiring element automatically, and wherein the second input signal providing element provides the input signal routed through the receiving element by selecting any one of the second correction tools, the signal source, or the receiving side signal output acquiring element automatically.

The present invention as previously described ~~in claim 38,~~ is ~~the~~ an automatic corrector ~~according to claim 37,~~ wherein the first input signal providing element provides the input signal to the signal output acquiring element through a first power meter, while the second input signal providing element provides the input signal to the receiving side signal output acquiring element through a second power meter.

The present invention as previously described ~~in claim 39,~~ is ~~the~~ an automatic corrector ~~according to claim 37,~~ wherein the first input signal providing element provides the input signal to the signal output acquiring element through a first power sensor and a first power meter body, while the second input signal providing element provides the input signal to the receiving side signal output acquiring element through a second power sensor and a second power meter body, the first and second power sensors being built in the automatic corrector and the first and second power meter bodies being built in the network analyzer.

The present invention as described ~~in claim 40,~~ is a correction method of an automatic corrector having a plurality of correction tools for achieving different conditions respectively and being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, the correction method including an input signal providing step for providing the input signal by selecting any one of the correction tools or the receiving element automatically.

The present invention as described ~~in claim 41,~~ is a correction method of an automatic corrector having a plurality of first correction tools for achieving different conditions respectively in regard to the signal source of the input signal, and a plurality of second correction tools for achieving different conditions respectively in regard to the receiving element; and being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element

for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, wherein the receiving element includes: (e-1) a receiving side input signal measuring element for measuring a predetermined parameter concerning the input signal before the occurrence of measurement system error factors; (e-2) a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; (e-3) a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and (e-4) a receiving side measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element, the correction method including: a first input signal providing step for providing the input signal from the signal source by selecting any one of the first correction tools or the receiving element automatically; and a second input signal providing step for providing the input signal routed through the receiving element by selecting any one of the second correction tools or the signal source automatically.

The present invention as described ~~in claim 42,~~ is a program of instructions for execution by the computer to perform a correction process of an automatic corrector having a plurality of

correction tools for achieving different conditions respectively and being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, the correction process including an input signal providing step for providing the input signal by selecting any one of the correction tools or the receiving element automatically.

The present invention as described ~~in claim 43,~~ is a program of instructions for execution by the computer to perform a correction process of an automatic corrector having a plurality of first correction tools for achieving different conditions respectively in regard to the signal source of the input signal, and a plurality of second correction tools for achieving different conditions respectively in regard to the receiving element; and being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement

system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, wherein the receiving element includes: (e-1) a receiving side input signal measuring element for measuring a predetermined parameter concerning the input signal before the occurrence of measurement system error factors; (e-2) a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; (e-3) a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and (e-4) a receiving side measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element, the correction process including: a first input signal providing step for providing the input signal from the signal source by selecting any one of the first correction tools or the receiving element automatically; and a second input signal providing step for providing the input signal routed through the receiving element by selecting any one of the second correction tools or the signal source automatically.

The present invention as described ~~in claim 44,~~ is a computer-readable medium having a program of instructions for execution by the computer to perform a correction process of an automatic corrector having a plurality of correction tools for achieving different conditions

respectively and being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, the correction process including an input signal providing step for providing the input signal by selecting any one of the correction tools or the receiving element automatically.

The present invention as described ~~in claim 45,~~ is a computer-readable medium having a program of instructions for execution by the computer to perform a correction process of an automatic corrector having a plurality of first correction tools for achieving different conditions respectively in regard to the signal source of the input signal, and a plurality of second correction tools for achieving different conditions respectively in regard to the receiving element; and being connected to a network analyzer having: (a) an input signal measuring element for measuring a predetermined parameter concerning an input signal before the occurrence of measurement system error factors; (b) a reflected signal measuring element for measuring a predetermined parameter concerning a reflected signal for the input signal; (c) a signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the

measurement system error factors; (d) a measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the input signal measuring element, the reflected signal measuring element and the signal output acquiring element, and (e) a receiving element for receiving the input signal, after being output, as a received signal, wherein the receiving element includes: (e-1) a receiving side input signal measuring element for measuring a predetermined parameter concerning the input signal before the occurrence of measurement system error factors; (e-2) a receiving side reflected signal measuring element for measuring a predetermined parameter concerning a receiving side reflected signal for the input signal after being output from the receiving element and being reflected; (e-3) a receiving side signal output acquiring element for acquiring the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors; and (e-4) a receiving side measurement system error factor acquiring element for acquiring the measurement system error factors based on the measurement results of the receiving side input signal measuring element, the receiving side reflected signal measuring element and the receiving side signal output acquiring element, the correction process including: a first input signal providing step for providing the input signal from the signal source by selecting any one of the first correction tools or the receiving element automatically; and a second input signal providing step for providing the input signal routed through the receiving element by selecting any one of the second correction tools or the signal source automatically.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY J. DOLE whose telephone number is (571)272-2229. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy J. Dole/
Primary Examiner, Art Unit 2831